

PATENT
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s):	David M. Vande Berg	Examiner:	Uyen-Chau N. Le
Serial No.:	09/911,993	Group Art No.:	2876
Filed:	24 July 2001	Att'y Docket No.:	409549
		Date:	April 11, 2006

For: APPARATUS AND METHOD FOR MOUNTING AN RF TAG ON A
CONVEYOR TROLLEY

APPEAL BRIEF

Mail Stop: Appeal Brief-Patent
Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450

In accord with 37 CFR § 41.37, and fully responsive to the Office Action of 28 February 2006, Appellant hereby files his Appeal Brief in support of his Appeal in the above-identified matter. A notice of appeal, with appropriate fee of \$250 as required by §§41.31, 41.20(b)(1), is filed concurrently herewith. The \$250 fee for this appeal brief, as required by 37 CFR §41.20(b)(2), is also filed herewith.

REAL PARTY IN INTEREST

The patent rights associated with this application have been assigned to VBS, Inc., a small entity having its principal place of business at 770 Seventh Street NW, Sioux Center, Iowa 51250. An Assignment document reflecting this was filed with the United States Patent & Trademark Office on April 7, 2006 and recorded at Reel 017434, Frame 0745. VBS, Inc. is the real party in interest.

RELATED APPEALS AND INTERFERENCES

There are no other appeals or interferences known to appellant or the appellant's legal representative which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

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STATUS OF CLAIMS

Claims 13-24 are pending in the current application. Claims 17-19 and 23-24 stand allowed. Claim 16 stands objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims; should the base claims not be found allowable on Appeal, Appellant will rewrite claim 16 as indicated. The final rejections of claims 13-15 and 20-22 are being appealed.

STATUS OF AMENDMENTS

No amendment has been filed subsequent to final rejection.

SUMMARY OF CLAIMED SUBJECT MATTER

In the embodiment of independent claim 13, a conveyor trolley 3 includes: a strap 7 having first and second legs 9, 11 connected by an arch 13 (specification page 5, lines 10-11); a wheel 15 having a hub 23, an outer rim 27, and a web 31 connecting the outer rim 27 to the hub 23, the web 31 having a thickness which is less than the thickness of the outer rim 27 such that a first annular recess 37 is formed between the hub 23 and the outer rim 27, the wheel 15 being rotatably mounted on an axle 17 between the strap first and second legs 9, 11 (specification page 5, lines 16-22 and 11-12); a hook 21 extending downwardly from the first leg 9 for suspending a load therefrom (specification page 5, lines 12-14); and an RF tag 2 mounted in the first annular recess 37 of the wheel 15 for transmitting an identifying signal (specification page 5, lines 5-8; page 6, line 1 – page 7, line 13).

In the embodiment of independent claim 20, an identification system for a conveyor trolley 3 includes: a wheel 15 for engaging a track 5, the wheel 15 including a hub 23, an outer rim 27, and a web 31 connecting the outer rim 27 to the hub 23, the web 31 having a thickness less than the thickness of the outer rim 27 (specification page 5, lines 16-22); an RF tag 2 mounted in a block of material 41, the block of material 41 being shaped to fit between the hub 23 and the outer rim 27 of the wheel 15 and being mounted to the web 31 (specification page 5, lines 5-8; page 6, line 1 – page 7, line 13).

In the embodiment of independent claim 21, a method of attaching an RF tag 2 to a conveyor trolley 3 having a wheel 15 with a hub 23, an outer rim 27, and a recess 37 formed in the wheel 15 between the hub 23 and the outer rim 27 (specification page 5, lines 5-8, 11-12, and 16-22) includes the steps of: (a) embedding the RF tag 2 in a block of material 41 shaped to fit within the recess 37 (specification page 6, line 1 – page 7, line 13); (b) placing the block 41 in the recess 37 (specification page 6, line 1 – page 7, line 13); (c) securing the block 41 to the wheel 15 (specification page 6, line 1 – page 7, line 13).

In the embodiment of independent claim 22, a method of attaching an RF tag 2 to a conveyor trolley 3 having a wheel 15 with a hub 23, an outer rim 27, and a web 31 connecting the hub 23 to the outer rim 27, the web 31 having a thickness less than the thickness of the outer rim 27 (specification page 5, lines 5-8, 11-12, and 16-22) includes the steps of: (a) embedding the RF tag 2 in a block of material 41 shaped to fit between the hub 23 and the outer rim 27 of the wheel 15 adjacent the web 31 (specification page 6, line 1 – page 7, line 13); and (b) attaching the block 41 to the web 31 in a protected position between the outer rim 27 and the hub 23 (specification page 6, line 1 – page 7, line 13).

GROUND OF REJECTION TO BE REVIEWED ON APPEAL

I. Is an obviousness rejection of claims 13, 14, and 20-22 appropriate? Namely, does appropriate motivation exist, absent Appellant's disclosure, to combine Black (US 6,494,305) with Chapman (US 3,651,704) and Blankenship (US 6,267,291)?

II. If appropriate motivation does exist, absent Appellant's disclosure, to combine Black ('305) with Champan ('704) and Blankenship ('291), is an obviousness rejection of claim 13 nevertheless appropriate? Namely, does the combination of prior art references teach or suggest every limitation in claim 13?

III. Is the possibility that parts of the prior art could be arranged dispositive, rendering such a rejection of claim 13 appropriate? Namely, assuming for purposes of appeal that parts of the prior art could be arranged to arrive at Appellant's claim 13, does that in and of itself render claim 13 unpatentable?

IV. Is an obviousness rejection of claim 14 appropriate? Namely, does motivation exist, absent Appellant's disclosure, to combine Black ('305) with Chapman ('704), Blankenship ('291), and Fleischer (US 4,697,278)?

V. If appropriate motivation does exist, absent Appellant's disclosure, to combine Black ('305) with Champan ('704), Blankenship ('291), and Fleischer ('278), is an obviousness rejection of claim 14 nevertheless appropriate? Namely, does the combination of prior art references teach or suggest every limitation in claim 14?

VI. Has the Examiner set forth a *prima facie* case of obviousness for claim 15, rendering an obviousness rejection of claim 15 appropriate? Namely, does the prior art teach or suggest all of the claim limitations of claim 15?

VII. Is an obviousness rejection of claims 20-22 appropriate? Namely, does the combination of prior art references teach or suggest every limitation in claims 20-22?

ARGUMENT

I. Is an obviousness rejection of claims 13, 14, and 20-22 appropriate? Namely, does appropriate motivation exist, absent Appellant's disclosure, to combine Black (US 6,494,305) with Chapman (US 3,651,704) and Blankenship (US 6,267,291)?

The initial burden is on the examiner to provide some suggestion of the desirability of doing what the inventor has done. "To support the conclusion that the claimed invention is directed to obvious subject matter, either the references must expressly or impliedly suggest the claimed invention or the examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references." *Ex parte Clapp*, 227 U.S.P.Q. 972, 973 (Bd. Pat. App. & Inter. 1985). To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based

on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991).

Even if it would have been obvious to modify Black ('305) by Chapman ('704) to create a lighter weight system as the Examiner suggests on pages 4 and 8-9 of the 2/28/2006 Office Action (and previously on page 4 of the 10/17/2005 Office Action and page 4 of the 6/29/2005 Office Action), there would be absolutely no suggestion or motivation to combine the combination of Black ('305) and Chapman ('704) with Blankenship ('291), and the Examiner's combination of Black ('305), Chapman ('704), and Blankenship ('291) clearly constitutes impermissible hindsight.

In explaining the motivation to combine on pages 5-6 of the 2/28/2006 Office Action (and previously on page 4 of the 10/17/2005 Office Action), the Examiner writes:

It would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to rearrange the location of the block having the RF tag of Black et al/Chapman et al from the trolley to the surface/recess between the hub and rim as taught by Blankenship et al in order to provide Black et al/Chapman et al with a more secure system wherein the block is mounted within the recess between the hub and the outer rim of the wheel instead of exposing on the outer surface of the trolley, and thus preventing separation of the tag from the system during conveying and handling.

Appellant has repeatedly pointed out that this alleged separation problem is not found in any reference cited by the Examiner, and to the Appellant's knowledge, separation has not been a problem experienced in the prior art. A reference to tag damage may be found on page 2, lines 19-21 of the Appellant's specification as filed, however. Notwithstanding the Examiner's dedication to his prior positions, the Appellant respectfully contends that the Examiner has used impermissible hindsight and a faulty reading of the Appellant's disclosure to combine elements of various references. This is clearly contrary to the requirement of *Vaeck* that "The teaching or suggestion to make the claimed combination ... must ... be found in the prior art and not based on applicant's disclosure."

Although the Appellant has previously and repeatedly pointed out that separation has not been a problem and that the Examiner's motivation to combine is faulty, the

Examiner has never addressed this aspect of the Appellant's argument. Instead, the Examiner has repeatedly opted to only provide the standard quotation, "it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper" and citation to *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

As noted in § 2144 of the MPEP, a very strong rationale for combining references is a recognition, expressly or impliedly in the prior art or drawn from a convincing line of reasoning based on established scientific principles or legal precedent, that some advantage or expected beneficial result would have been produced by their combination. *In re Sernaker*, 702 F.2d 989, 994-95, 217 USPQ 1, 5-6 (Fed. Cir. 1983). From this, the Appellant would have been satisfied with the Examiner's motivation to combine references had an advantage or beneficial result cited by the Examiner been produced by their combination. And from *In re Linter*, 458 F.2d 1013, 173 USPQ 560 (CCPA 1972) and *In re Dillon*, 919 F.2d 688, 16 USPQ2d 1897 (Fed. Cir. 1990), it is clear that the Examiner's motivation to combine references may be for a different purpose or to solve a different problem than that addressed by the Appellant. In other words, the advantage of the Examiner's combination does not have to be the same advantage obtained by the Appellant. Nevertheless, and contrary to the Examiner's assertions, the Examiner's motivation to combine does not provide an advantage or produce a "beneficial result" related to the Examiner's stated motivation.

The Examiner's motivation cited above of "a more secure system...preventing separation of the tag from the system during conveying and handling" cannot reasonably be seen as an "advantage" or a "beneficial result" because there was not a corresponding problem to be solved. As noted above and in the Amendments dated 12/5/2005 and 8/2/2005, separation simply has not been a problem experienced in the prior art, and this alleged separation problem is not found in any reference cited by the Examiner. If there was no problem before the combination, how can there be an advantage or benefit by still

having no problem after the combination? At best, the Examiner has not worsened the system in regards to tag separation through his combination of references. The Appellant strongly contends that the Examiner's given motivation does not satisfy *Vaeck* or *Linter*, and the Appellant respectfully requests allowance of claims 13, 14, 20-22, and the claims that depend therefrom due to a complete lack of motivation to combine the references of Black ('305), Chapman ('704), and Blankenship ('291).

II. If appropriate motivation does exist, absent Appellant's disclosure, to combine Black ('305) with Champan ('704) and Blankenship ('291), is an obviousness rejection of claim 13 nevertheless appropriate? Namely, does the combination of prior art references teach or suggest every limitation in claim 13?

After further reviewing the Examiner's Office Actions dated 2/28/2006, 10/17/2005, and 6/29/2005, the Appellant continues to stand by the argument that the combination of Black ('305), Chapman ('704) and Blankenship ('291) does not teach or suggest all of the Appellant's claim limitations as required by *Vaeck*. Contrary to the Examiner's continued insistence, there is no teaching in any of the Examiner's references (singularly or in combination) to mount an RFID tag in any recess, much less in an annular recess of a wheel as claimed by the Appellant.

The Examiner has claimed to arrive at such an RFID tag mounted in an annular recess of a wheel by providing the carcass-tracking apparatus of Black ('305), incorporating the annular recess of Chapman ('704) into Black ('305), and then placing the tag as taught by Blankenship ('291). The Examiner has stated that Blankenship ('291) teaches "a RF tag 138 is mounted directly on a surface 134 in the area of between the hub and the rim of a wheel 132A (figs. 10-11; col. 10, lines 8-17)." Page 4, 2/28/2006 Office Action.

The Appellant continues to respectfully dispute that Blankenship ('291) teaches such an arrangement, and the Appellant continues to alternately suggest that the Examiner does not fully appreciate the "on a surface" language quoted above. From yet again reading the text cited by the Examiner and reviewing the cited figures, the Appellant strongly contends that Blankenship ('291) teaches nothing more than placing

an RF tag on an outer flange of a reel (or, in the Examiner's words, "on a surface"). According to col. 10, lines 8-11 of Blankenship ('291), the "flange 134 [is] provided with [an RFID tag]", and according to col. 10, lines 16-17 of Blankenship ('291), "an RFID tag or button 138 [is] attached to flange 134". If it were possible to combine the teachings of Blankenship ('291) with those of Black ('305) and Chapman ('704), the tag would be placed on an outer surface of the Chapman ('704) structure, such as the part of the Chapman ('704) flange 28 that is parallel to the Chapman ('704) web 24.

Because the Examiner's combination of prior art references does not teach or suggest all of the Appellant's limitations in claim 13, directly contrary to the requirements of *Vaeck* noted above, the Appellant respectfully requests allowance of claim 13 and the claims that depend therefrom.

III. Is the possibility that parts of the prior art could be arranged dispositive, rendering such a rejection of claim 13 appropriate? Namely, assuming for purposes of appeal that parts of the prior art could be arranged to arrive at Appellant's claim 13, does that in and of itself render claim 13 unpatentable?

The Examiner has continued to suggest that "employing the RF tag directly on the wheel instead of on the trolley is simply a rearrangement of parts, and therefore an obvious expedient." Page 5, 2/28/2006 Office Action; page 5, 10/17/2005 Office Action. However, as the Appellant has repeatedly noted, "The mere fact that a worker in the art could rearrange the parts of the referenced device to meet the terms of the claims on appeal is not by itself sufficient to support a finding of obviousness. The prior art must provide a motivation or reason for the worker in the art, without the benefit of appellant's specification, to make the necessary changes in the reference device." *Ex parte Chicago Rawhide Mfg. Co.*, 223 USPQ 351, 353 (Bd. Pat. App. & Inter. 1984). As discussed above in regard to section I. of the Argument, the prior art here clearly does not provide the required motivation. Nevertheless, the Examiner appears to be claiming that motivation to combine references is immaterial if parts may be rearranged to meet the Appellant's claim limitations. The Appellant strongly contends that motivation to combine references may not be disregarded under *Vaeck* or *Chicago Rawhide Mfg.*, and

that the possibility that parts may be rearranged to arrive at the Appellant's claim limitations does not make those claim limitations obvious expedients. Appellant respectfully requests allowance of claim 13 and the claims that depend therefrom.

IV. Is an obviousness rejection of claim 14 appropriate? Namely, does motivation exist, absent Appellant's disclosure, to combine Black ('305) with Chapman ('704), Blankenship ('291), and Fleischer (US 4,697,278)?

Appellant has addressed the lack of motivation to combine Black ('305) with Chapman ('704) and Blankenship ('291) above in section I. of the Argument, and those arguments are incorporated herein by reference.

Appellant further notes that in rejecting claim 14, the Examiner uses similar motivation as above to combine Fleischer ('278): "to provide Black et al/Chapman et al/Blankenship et al with an alternative means for securing the tag to the wheel that prevent the tag from separated [sic] from the wheel during transporting." Page 6, 2/28/2006 Office Action; page 6, 10/17/2005 Office Action, emphasis added. Though the Appellant has previously pointed out the noted grammatical error in addition to the larger error of combining these references without appropriate motivation, the Examiner has again provided the Appellant with the same sentence verbatim, leading the Appellant to question whether his earlier arguments were ever considered.

As above, the Appellant strongly contends that (1) this alleged separation problem was not real, and (2) not making a system more susceptible to a previously unexperienced problem is not an "advantage" or "beneficial result" under *Linter*. The Appellant respectfully maintains that the Examiner's given motivation to combine references does not satisfy *Vaeck* or *Linter*, and the Appellant respectfully requests allowance of claim 14 and claim 16 that depends therefrom due to a complete lack of motivation to combine the references of Black ('305), Chapman ('704), Blankenship ('291), and Fleischer ('278).

V. If appropriate motivation does exist, absent Appellant's disclosure, to combine Black ('305) with Champan ('704), Blankenship ('291), and Fleischer ('278), is

an obviousness rejection of claim 14 nevertheless appropriate? Namely, does the combination of prior art references teach or suggest every limitation in claim 14?

Appellant respectfully urges that the Examiner's cited references do not teach or suggest all of the Appellants limitations in claim 14. The Appellant has addressed many of these absent claim limitations above in section II. of the Argument, and those above arguments are incorporated herein by reference.

Further, the Appellant continues to respectfully dispute that Fleischer ('278) teaches a "block of material shaped to conform to a portion of said first annular recess" as claimed by the Appellant. From once again reviewing Fig. 1 and col. 4, lines 1-33 of Fleischer ('278) as cited by the Examiner, it is very clear to the Appellant that the circuit board of Fleischer ('278) is not "shaped to conform to a portion of [an] annular recess". Instead, the circuit board of Fleischer ('278) is simply located in a casing 12. It is not in fact "shaped to conform" to anything. At best, it is "sized to fit in the casing". Additionally, the entire casing 12 is being attached to a wheel hub by boss 14. See col. 2, lines 30-41. However, the casing 12 is also not "shaped to conform" to anything.

Also, the area between the hub (support shaft 22) and the rim (annular side wall 18) of Fleischer ('278) does not contain the circuit board 42, as may be clearly seen in FIG. 2 of Fleischer ('278) and as would be minimally required to support a rejection of claim 14. Appellant's hub 23 and rim 27 may be seen in FIG. 3 and are described on page 5 of the application as filed at lines 16-18, for reference. Fleischer ('278) clearly does not teach or suggest Appellant's "block of material shaped to conform to a portion of [a] first annular recess", the "first annular recess [being] formed between [a] hub and [an] outer rim" as present in Appellant's claim 14.

Because the Examiner's combination of prior art references does not teach or suggest all of the Appellant's limitations in claim 14, directly contrary to the requirements of *Vaeck* noted above, the Appellant respectfully requests allowance of claim 14 and claim 16 that depends therefrom.

VI. Has the Examiner set forth a *prima facie* case of obviousness for claim 15, rendering an obviousness rejection of claim 15 appropriate? Namely, does the prior art teach or suggest all of the claim limitations of claim 15?

Just as there is nothing in the prior art that teaches or suggests placing an RF tag in an annular recess of a wheel (as noted above), there is nothing in the prior art that teaches or suggests placing an RF tag in a particular annular recess of a wheel as set forth in claim 15. Further, the Examiner has constantly failed to address this limitation, as also noted earlier in the Appellant's Amendments dated 12/5/2005 and 8/2/2005. Again, all of the Appellant's claim limitations have not been taught or suggested as required by *Vaeck*, the Examiner has consistently failed to establish a *prima facie* case of obviousness regarding claim 15 (or to even address claim 15), and as such, the Appellant respectfully requests allowance of claim 15.

VII. Is an obviousness rejection of claims 20-22 appropriate? Namely, does the combination of prior art references teach or suggest every limitation in claims 20-22?

Claims 20-22 all have limitations similar to "embedding an RF tag in a block of material shaped to fit within a recess between the hub and outer rim", and as such, Appellant respectfully urges that the Examiner's cited references do not teach or suggest all of the Appellants limitations in claim 20-22. The Appellant has addressed many additional absent claim limitations above in section II. of the Argument, and those above arguments are incorporated herein by reference.

Appellant notes that the area between the hub (support shaft 22) and the rim (annular side wall 18) of Fleischer ('278) does not contain the circuit board 42, as may be clearly seen in FIG. 2 of Fleischer ('278) and as would be minimally required to support a rejection of claims 20-22. Appellant's hub 23 and rim 27 may be seen in FIG. 3 and are described on page 5 of the application as filed at lines 16-18, for reference. Fleischer ('278) clearly does not teach or suggest Appellant's "RF tag embedded in a block of material, the block of material being shaped to fit between the hub and the outer rim of the wheel and being mounted to the web" as present in claim 20, or the similar limitations in claims 21 and 22.

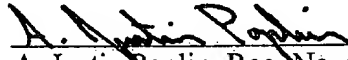
Because the Examiner's combination of prior art references does not teach or suggest all of the Appellant's limitations in claims 20-22, directly contrary to the requirements of *Vaeck* noted above, the Appellant respectfully requests allowance of claims 20-22.

Conclusion. In view of the above, the Appellant requests allowance of the claims remaining in this application and asks that this application pass to issue.

If any additional fee is due, please charge Deposit Account No. 12-0600.

Respectfully submitted,

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APPENDIX - CLAIMS

1 – 12 cancelled.

13. (Previously Presented) A conveyor trolley comprising:
- a) a strap having first and second legs connected by an arch;
 - b) a wheel having a hub, an outer rim, and a web connecting said outer rim to said hub, said web having a thickness which is less than the thickness of said outer rim such that a first annular recess is formed between said hub and said outer rim; said wheel being rotatably mounted on an axle between said first and second legs of said strap;
 - c) a hook extending downward from said first leg for suspending a load therefrom; and
 - d) an RF tag mounted in said first annular recess of said wheel for transmitting an identifying signal.

14. (Original) The conveyor trolley as in Claim 13, wherein said RF tag is imbedded in a first block of material shaped to conform to a portion of said first annular recess.

15. (Original) The conveyor trolley as in Claim 13 wherein said first annular recess is adjacent said second leg and said second leg terminates proximate said axle.

16. (Original) The conveyor trolley as in Claim 14 wherein said web comprises a plurality of spokes separated by openings, and said first block is shaped to extend into one of said openings between said spokes.

17. (Previously Presented) A conveyor trolley comprising:
- a strap having first and second legs connected by an arch;
 - a wheel having a hub, an outer rim, and a web connecting said outer rim to said hub, said web having a thickness which is less than the thickness of said outer rim such that a first annular recess is formed between said hub and

said outer rim, a second annular recess on the opposite side of said web from said first annular recess, said web comprising a plurality of spokes separated by openings, said wheel being rotatably mounted on an axle between said first and second legs of said strap;
a hook extending downward from said first leg for suspending a load therefrom;
and
an RF tag mounted in said first annular recess of said wheel for transmitting an identifying signal, said RF tag being imbedded in a first block of material shaped to conform to a portion of said first annular recess, said first block being shaped to extend into one of said openings between said spokes, said first block being mounted in said first recess by a clamping member seated in said second recess and secured to said first block by a fastener such that said first block and said clamping member abut opposite sides of at least one of said spokes.

18. (Original) The conveyor trolley as in Claim 17 wherein said clamping member is a second block of material shaped to conform to a portion of said second annular recess.

19. (Original) The conveyor trolley as in Claim 18 wherein said second block is shaped to extend into said one opening.

20. (Previously Presented) An identification system for a conveyor trolley, the identification system comprising,
a wheel for engaging a track, the wheel including a hub, an outer rim, and a web connecting the hub to the outer rim, the web having a thickness less than the thickness of the outer rim, and
an RF tag embedded in a block of material, the block of material being shaped to fit between the hub and the outer rim of the wheel and being mounted to the web.

21. (Original) A method of attaching an RF tag to a conveyor trolley having a wheel with a hub, an outer rim, and a recess formed in the wheel between the hub and outer rim, said method comprising the steps of:

- a) embedding said RF tag in a block of material shaped to fit within the recess;
- b) placing said block in the recess; and
- c) securing said block to the wheel.

22. (Original) A method of attaching an RF tag to a conveyor trolley having a wheel with a hub, an outer rim, and a web connecting the hub to the outer rim, the web having a thickness which is less than the thickness of the outer rim, said method comprising the steps of:

- a) embedding said RF tag in a block of material shaped to fit between the hub and outer rim of the wheel adjacent the web; and
- b) attaching said block to the web in a protected position between the outer rim and the hub.

23. (Original) A method of attaching an RF tag to a conveyor trolley having a wheel with a hub, an outer rim, and a web connecting the hub to the outer rim, the web comprising a plurality of spokes with openings formed therebetween, the web having a thickness which is less than the thickness of the outer rim such that first and second annular recesses are formed between the hub and the outer rim on respective sides of the web, said method comprising the steps of:

- a) securing said RF tag to a block of material shaped to fit into one of said annular recesses;
- b) placing said block in the first annular recess;
- c) placing a clamping member in the second recess opposite said block;
- d) connecting said clamping member to said block with a threaded fastener extending through one of the openings in the web;
- e) tightening said threaded fastener to draw said block and said clamping member together and against said spokes.

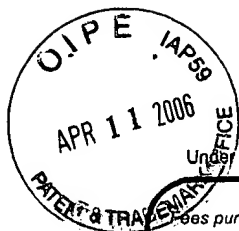
24. (Previously Presented) The conveyor trolley as in Claim 17 wherein said fastener includes one or more rivet.

APPENDIX – EVIDENCE

None.

APPENDIX – RELATED PROCEEDINGS

None.



Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

Fees pursuant to the Consolidated Appropriations Act, 2005 (H.R. 4818).

**FEE TRANSMITTAL
for FY 2005**☒ Applicant claims small entity status. See 37 CFR 1.27**TOTAL AMOUNT OF PAYMENT** (\$) 500.00**Complete if Known**

Application Number	09/911,993
Filing Date	July 24, 2001
First Named Inventor	David M. Vande Berg
Examiner Name	Uyen-Chau N Le
Art Unit	2876
Attorney Docket No.	409549

METHOD OF PAYMENT (check all that apply)

☐ Check ☐ Credit Card ☐ Money Order ☐ None ☐ Other (please identify) : _____
☒ Deposit Account Deposit Account Number: 12-0600 Deposit Account Name: LATHROP & GAGE LC

For the above-identified deposit account, the Director is hereby authorized to: (check all that apply)

☒ Charge fee(s) indicated below ☐ Charge fee(s) indicated below, except for the filing fee
☒ Charge any additional fee(s) or underpayments of fee(s) ☒ Credit any overpayments

Under 37 CFR 1.16 and 1.17

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

FEE CALCULATION**1. BASIC FILING, SEARCH, AND EXAMINATION FEES**

Application Type	FILING FEES		SEARCH FEES		EXAMINATION FEES		Fees Paid (\$)
	Fee (\$)	Small Entity Fee(\$)	Fee(\$)	Small Entity Fee(\$)	Fee(\$)	Small Entity Fee(\$)	
Utility	300	150	500	250	200	100	_____
Design	200	100	100	50	130	65	_____
Plant	200	100	300	150	160	80	_____
Reissue	300	150	500	250	600	300	_____
Provisional	200	100	0	0	0	0	_____

2. EXCESS CLAIM FEES**Fee Description**

Each claim over 20 (including Reissues)

Each independent claim over 3 (including Reissues)

Multiple dependent claims

Total Claims	Extra Claims	Fee(\$)	Fee Paid (\$)	Multiple Dependent Claims
_____ - 20 or HP = _____	x _____	= _____	_____	_____

HP = highest number of total claims paid for, if greater than 20.

Indep. Claims	Extra Claims	Fee(\$)	Fee Paid (\$)
_____ - 3 or HP = _____	x _____	= _____	_____

HP = highest number of independent claims paid for, if greater than 3.

3. APPLICATION SIZE FEE

If the specification and drawings exceed 100 sheets of paper (excluding electronically filed sequence or computer listings under 37 CFR 1.52(e)), the application size fee due is \$250 (\$125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).

Total Sheets	Extra Sheets	Number of each additional 50 or fraction thereof	Fee (\$)	Fee Paid (\$)
_____ - 100 = _____	/ 50 = _____	(round up to a whole number) x	= _____	_____

4. OTHER FEE(S)

Non-English Specification, \$130 fee (no small entity discount)

Other (e.g., late filing surcharge): Filing Appeal Brief

Fees Paid (\$)**\$250****SUBMITTED BY**

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